

October 1, 2021

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The Island Regulatory and Appeals Commission

Ms. Cheryl Mosher Island Regulatory & Appeals Commission PO Box 577 Charlottetown PE C1A 7L1

Dear Ms. Mosher:

UE22503 - Application for an Order to Approve Stage 1 Rate Design Changes Response to Interrogatories from Synapse Energy Economics, Inc.

Please find attached the Company's response to the Interrogatories filed by Synapse Energy Economics, Inc. with respect to the Company's Application for an Order to Approve Stage 1 Rate Design Changes. An electronic copy will follow.

Yours truly,

MARITIME ELECTRIC

Gloria Crockett, CPA, CA

Dlaia Crocnett

Manager, Regulatory & Financial Planning

GCC27 Enclosure



# Response to Interrogatories regarding UE22503 – Application for an Order to Approve Stage 1 Rate Design Changes from Synapse Energy Economics, Inc.

Submitted October 1, 2021



IR-1 Refer to the 2017 Cost Allocation Study filed on June 26, 2018. Please provide the cost allocation model in native format with all formulas intact and any workpapers relied on to develop the model.

### Response:

The 2017 Cost Allocation Study Model is included in the attached spreadsheet labeled IR-1 – 2017 Maritime Electric Cost Allocation Final<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> Note that this information is provided in an electronic format only.

	(UE22503) Rate Design
laritime Electric	Interrogatories from Synapse Energy Economics, Inc

IR-2 Refer to the 2020 Cost Allocation Study filed on July 21, 2021. Please provide the cost allocation model in native format with all formulas intact and any workpapers relied on to develop the model.

### Response:

The 2020 Cost Allocation Study model is included in the attached spreadsheet labeled IR-2 – 2020 MECL Cost Allocation Final<sup>2</sup>.

Note that this information is provided in an electronic format only.

- IR-3 Regarding average site-related costs for the Residential, Residential (Seasonal), and Farm rate schedules:
  - Please identify the specific distribution cost categories used to calculate the a. average site-related costs for each rate schedule.
  - Please provide the workpapers used to perform this calculation. b.

Site-related costs by function are shown on page 17 of 79 - Schedule 1.4 (columns B-D, rows 70-82) of the 2020 Cost Allocation Study. These costs are shown in the table below, along with the number of bills used to calculate the average site-related costs (from page 26 of 79 - Schedule 2.2, row 39<sup>3</sup>).

2020 Cost Allocation Study - Calculation of Average Site-Related Costs				
Cost Category	Reference	Residential Site-Related Cost	Residential (S) Site-Related Costs	Farms Site-Related Costs
Primary lines		\$ 5,704	\$ 712	\$ 48
Distribution transformers		3,813	476	32
Secondary lines		1,988	248	17
Service lines		5,050	744	50
Meter assets		1,221	152	10
Meter reading		709	52	6
Billing		715	52	6
Remittance and collection		527	39	4
Uncollectibles and damage claims		285	36	2
Service connections		(300)	(24)	(0)
Late payments		(512)	(18)	(12)
Total Annual Cost <sup>4</sup> (thousands)	Α	\$ 19,200	\$ 2,468	\$ 164
Average Number of bills per month	В	61,785	4,527 <sup>3</sup>	523
Average site-related monthly costs	C = A /B / 12 months	\$ 25.90	\$ 45.44	\$ 26.19

Average number of Residential Seasonal bills per month consists of the total annual bills for Residential Seasonal - Rate 131 (billed 12 months per year) of 15,889 plus the total annual bills for Residential Seasonal Option – Rate 133 (billed 6 months per year) of 38,436 divided by twelve months.

Totals are rounded.

IR-4 Please describe how long MECL has used its current methodology for classifying siterelated costs as either demand-related or site-related, and whether the Commission has explicitly approved or directed MECL to use a certain methodology.

### Response:

We assume there has been a typographical error in the question, and the question was intended to say: "Please describe how long MECL has used its current methodology for classifying distribution-related costs as either demand-related or site-related..."

The classification percentages have remained consistent over the years. The table below shows the demand-related and site-related classification percentages for the three functions that are split between demand and sites in cost allocation studies done for Maritime Electric during the past 30 years. Service lines and the functions listed below service lines in the table forming part of the response to IR-3 are classified as 100 per cent site-related.

Classification Percentages for Functions with Demand/Site splits					
		Primary Distribution Lines Classification %	Distribution Transformers Classification %	Secondary Lines Classification %	
Consultant	Year	Demand/Site	Demand/Site	Demand/Site	
Monenco Consultants	1991	50 / 50	60 / 40	n/a	
Foster Associates	2005	50 / 50	60 / 40	50 / 50	
Chymko	2008	50 / 50	60 / 40	50 / 50	
Chymko	2014	50 / 50	60 / 40	50 / 50	
Chymko	2017	50 / 50	60 / 40	50 / 50	
Chymko	2020	50 / 50	60 / 40	50 / 50	

Maritime Electric is not aware of any direction received from the Commission during the past 30 years with respect to the methodology for classifying costs as between demand-related and site-related.

<u>Mariti</u>	(UE22503) Rate Design ime Electric Interrogatories from Synapse Energy Economics, Inc.
IR-5	When was the last time that MECL modified its cost allocation methodology for site-related costs?
Respo	onse:
See th	ne response to IR-4.

- IR-6 Refer to the 2020 Cost Allocation Study filed on July 21, 2021, pp. 14-15, which states "This cost allocation study continues with the same basic principles followed in previous MECL cost allocation studies. MECL considers that circumstances have not materially changed and the Company's objective for this study is to apply consistent methods to previous studies and facilitate a more meaningful comparison of results over time. Thus, lines are classified as fifty per cent demand-related and fifty per cent site-related whereas transformers are classified as sixty per cent demand-related and forty per cent site-related."
  - a. Does the application of "consistent methods to previous studies" regarding the classification of lines refer to using the same percentage, or to using the same methodology to derive the percentage?
  - b. When was the methodology for classification of lines developed?
  - c. Please provide the workpapers showing the calculation of the demand- and siterelated percentage classifications for lines and transformers.

- a. It refers to using the same percentage.
- b. As indicated in the table in response IR-4, the Company has relied on these percentages for the past 30 years.
- c. The requested calculations are not available, as they originate from over 30 years ago and could not be located.

- IR-7 Refer to the 2020 Cost Allocation Study filed on July 21, 2021, p. 18, which states that "coincident peak represents each rate class's contribution to the utility's peak demand day."
  - a. Please explain whether "peak demand day" is referring to all 24 hours in that day, the single peak hour, or something else.

"Peak demand day" refers to the single peak hour on the day where the system reaches its peak annual demand.

- IR-8 Refer to the 2020 Cost Allocation Study filed on July 21, 2021, page 3, Table 3.
  - a. Please provide the electronic workpapers with all formulae intact used to generate this table.
  - b. For each column ("2020," "Table 4 Stage 1 Rate Design Application," and "2017"), please specify the date of the coincident peak demand used.
  - c. Please add a column that uses the data from the Stage 1 Rate Design Application for sales and class coincident and non-coincident peak demands, but updates the revenue requirement to MECL's 2020 Cost Allocation Study revenue requirement. Please provide the workpapers showing this calculation.

- a. There is no electronic working paper associated with Table 3 of the letter accompanying the 2020 Cost Allocation Study filed on June 21, 2021. The source information for the Revenue-to-Cost ("RTC") ratios presented in this table are as follows:
  - The column labelled "2020" is from Table 11 on page 26 of the 2020 Cost Allocation Study prepared by Chymko Consulting Ltd.
  - The column labelled "Table 4 Stage 1 Rate Design Application" is from column E of Table 4 of the Stage 1 Rate Design Application filed on May 14, 2021 rounded to the nearest whole percentage point⁵. The working paper associated with Table 4 of the Rate Design Study Stage 1 Application is provided in the excel file labelled Synapse IRs 8a 24 and 25.xlsx⁶.
  - The column labelled "2017" is from Table 11 on page 25 of the 2017 Cost Allocation Study prepared by Chymko Consulting Ltd. This same information is also provided in Table 11 on page 26 of the 2020 Cost Allocation Study prepared by Chymko Consulting Ltd for comparison purposes.
- b. The annual system coincident peaks for 2017 and 2020 occurred on December 27, 2017 and January 17, 2020, respectively.

Columns "2017" and "Table 4 – Stage 1 Rate Design Application" were based on the 2017 Cost Allocation Study, and was therefore based on annual system coincident peak on December 27, 2017.

Column "2020" would normally be based on the annual system coincident peak on January 17, 2020. However, for reasons discussed in Section 46 of the 2020 Cost Allocation Study, the 2020 Cost Allocation Study peak day was taken to be December 16, 2020, not January 17, 2020, as follows:

"46. Under normal conditions, the MECL system peak reliably occurs during December, when demands for lighting and heating load are at their

As indicated in footnote 8 on page 22 of the Application, all tables in the Application are shown to the nearest 0.1 per cent to illustrate the changes to the RTC ratios at each step of the plan. This should not be taken as an indication of the level of precision for the RTC ratios shown in the Application. In both the 2017 and 2020 Cost Allocation Studies, the RTC ratios are shown to the nearest 1 per cent, which is more appropriate given the assumptions and estimates involved in the analysis.

<sup>&</sup>lt;sup>6</sup> Note that this information is provided in an electronic format only.

highest. Contrary to expectations, the 2020 system peak of 257.2 MW occurred on January 17 during a winter storm. However, January 17 was a storm day in PEI, with schools and many businesses closed. This resulted in the Residential load being higher than it otherwise would have been, and General Service and Small Industrial loads being lower than they would otherwise have been. So that the 2020 Cost Allocation Study could be based on more representative loads for the system peak, MECL and CCL agreed to use the second highest peak load for 2020 (255.4 MW on December 16) as the coincident peak for this study."

c. As discussed in Section 8.3 of the Rate Design Stage 1 Application, the purpose of Table 4 is to estimate the impact of the preliminary load study results on the 2017 Cost Allocation Study RTC ratios. The 2020 Cost Allocation Study incorporated the results of the preliminary residential load study and, therefore, restating the 2020 column in Table 3 is not required.

- IR-9 Refer to the 2020 Cost Allocation Study filed on July 21, 2021, p. 21, Table 7.
  - a. Please explain whether the "Farm" category includes smaller farms (e.g., with usage less than 5,000 kWh per month.)
  - b. Please provide the same table using the demand, energy, and number of customers from the Stage 1 Rate Design Application.

- a. The Farm category in the 2020 Cost Allocation Study does include farms with usage less than 5,000 kWh per month.
- b. The revised table is shown below. The Farm category has been adjusted to only include farms with usage greater than 5,000 kWh per month. Farms with usage less than or equal to 5,000 kWh per month were added to the Residential category.

Note that the labelling of the fifth column of Table 7 in the 2020 Cost Allocation Study was incorrect. Its label was "Energy Including Losses (MWh)", when in fact the energy amounts presented in that column were sales, and thus excluded losses. The column label should have been "Energy Excluding Losses (MWh)", thus rendering footnote #8 irrelevant. This oversight has been corrected in the table below.

Summary of 2020 Peak Demand Allocators					
	Coincident Peak (kW)	Coincident Peak – Firm (kW)	Non-Coincident Peak (kW)	Energy Excluding Losses (MWh)	Number of Sites
Residential	155,302	155,302	152,603	609,030	61,890
Residential (S)	1,835	1,835	6,801	20,423	7,709
Farms > 5,000 kWh	7,460	7,460	11,296	42,476	418
General Service	61,822	61,296	68,196	363,482	7,487
General Service (S)	2	2	2,090	6,978	1,690
Small Industrial	13,236	13,236	19,790	91,606	288
Large Industrial	14,205	4,237	8,870	151,758	6
Lights	1,179	1,179	1,198	4,494	4,727
Unmetered	371	371	364	2,501	281
Total	255,412	244,918	271,208	1,292,748	84,496

IR-10 For each farm customer with an interval meter, please provide an electronic spreadsheet with the hourly usage data for 2018, 2019, and 2020. If the data requested are not available, please provide the data that most closely matches that requested.

### Response:

The available data is being provided in the following Excel spreadsheets<sup>7</sup>:

- IR-10 Farms hourly data Jul 2018 to Dec 2018
- IR-10 Farms hourly data 2019 to 2020

Most of the interval meters were installed at farms during late spring 2018, so July 2018 is the first month with complete data for all farms.

Note that this information is provided in an electronic format only.

- IR-11 Refer to the 2020 Cost Allocation Study filed on July 21, 2021, pp. 22-23 regarding residential class peaks and heat pumps supplemented with resistive heat.
  - a. Please explain whether the installation of heat pumps supplemented with resistive heat is typically replacing other types of fuels, whether the heat pumps are typically replacing fully resistive heat systems, or whether the heat pumps are primarily being installed to serve new residential load.
  - b. Please provide all data and analyses used to inform the Company's belief that heat pumps with resistive heat back-up are the main contributing factor to observe higher system peaks for residential customers.

a. efficiencyPEI has a program to incentivize the installation of heat pumps in existing dwellings. Approximately 4,000 heat pumps were installed in 2020 through this program, which is roughly the same number of installations as was seen in the previous several years. Roughly 20 per cent of these heat pumps were installed in dwellings whose primary heating source is resistive electric (primarily baseboard), while the remaining 80 per cent were installed in dwellings using other forms of space heating including furnace oil, wood and propane. efficiencyPEI has indicated this has been the general trend for the past several years.

Maritime Electric estimates that 95 per cent of new housing starts use electric-based space heating, of which 80 per cent is estimated to be heat pumps. Typical single-detached and semi-detached dwellings will install two heat pumps with resistive baseboard supplementing this heat source, while other dwellings often install primarily baseboard heating with a single heat pump to offset a portion of the resistive baseboard usage.

Housing starts and the corresponding number residential heat pumps installed in 2020 was as follows.

	Number of Housing Starts <sup>8</sup>	Number of Heat Pumps <sup>9</sup>
efficiencyPEI Incentive Program		4,000
Single-detached	429	686 <sup>10</sup>
Semi-detached and duplex	120	192
Row housing	132	106
Apartments and others	481	385
Total	1,162	5,369

<sup>&</sup>lt;sup>8</sup> Prince Edward Island 47<sup>th</sup> Annual Statistical Review 2020; Table 61 - Housing Starts by Type of Unit, 2009-2020

Does not include heat pumps installed by businesses.

<sup>&</sup>lt;sup>10</sup> Single-detached homes = 429 houses x 80% penetration x 2 heat pumps per house.

b. The average temperature at the December system net peak on PEI over the past decade was -10.1°C, as calculated in the following table.

Year	PEI Total (MW)	Dec Date	Day of Week	Hour Ending	Temperature (°C)
2011	220.8	20	Tue	18:00	-6.1
2012	228.4	10	Mon	18:00	0.2
2013	251.8	12	Thu	18:00	-15.4
2014	254.5	30	Tue	18:00	-14.5
2015	240.6	28	Mon	18:00	-10.1
2016	264.2	16	Fri	18:00	-15.9
2017	278.4	27	Wed	18:00	-14.8
2018	269.8	27	Thur	18:00	-10.2
2019	275.2	16	Mon	18:00	-5.3
2020	283.5	16	Wed	18:00	-8.8
				Average	-10.1

efficiencyPEI incentives are being given for Northeast Energy Efficiency Partnerships Cold Climate Air-Source Heat Pump Specification ("NEEP ccASHP") air source heat pumps, which generally work to at least -25°C. As such, Maritime Electric assumes that all new heat pumps are still operating in heat pump mode, rather than resistive mode, at the time of system (winter) peak.

A new heat pump has a typical full load draw of approximately 2,000 watts. If all new heat pumps were operating a full output at winter peak, this would result in a 10.7 MW increment in peak each year, all else being equal. Usage diversity means that this is unrealistic. However, if even half of these are operating at system peak, that adds 5.4 MW to the system peak.

Below is an excerpt from Table 5 of Maritime Electric's 2020 Integrated System Plan.

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
MECL Energy (GWh)	1,443	1,489	1,525	1,560	1,593	1,625	1,656	1,688	1,720	1,752	1,782
Island Energy (GWh)	1,596	1,646	1,687	1,725	1,762	1,798	1,832	1,868	1,903	1,939	1,972
Island Winter Peak (MW)	294	304	312	321	329	337	345	353	361	368	374

The Company is estimating load growth will be approximately 9 MW per year and new heat pump load is considered to be a significant portion of this increase.

- IR-12 Refer to the 2020 Cost Allocation Study filed on July 21, 2021, p. 27 regarding a higher monthly service charge to the Seasonal rate class.
  - a. What would fully cost-reflective Seasonal Residential and Seasonal General Service monthly service charges be? Please provide the workpapers used to develop your response.
  - b. Is the Company proposing a change in the seasonal monthly service charges? If not, why not?

a. The table below provides estimates of fully cost-reflective monthly service charges (i.e., average site-related monthly cost) for the Residential Seasonal and General Service Seasonal rate classes. The costs shown are from page 17 of 79 Schedule 1.4 (columns C and F, rows 70-80) of the 2020 Cost Allocation Study.

		Residentia	I Seasonal	General Serv	rice Seasonal
Cost Category	Cost Category		Costs that vary with number of bills	Costs that don't vary with number of bills	Costs that vary with number of bills
Primary lines		\$ 712	\$ -	\$ 156	\$ -
Distribution trans	formers	476	-	104	-
Secondary lines		248	-	54	-
Service lines		744	-	183	-
Meter assets		152	-	170	-
Meter reading		-	52	1	10
Billing		-	52	1	10
Remittance and	collection	-	39	1	7
Uncollectibles an	nd damage claims	-	36	1	8
Service connecti	ons	-	(24)		(3)
Late payments		-	(18)		(5)
Total (thousands	5)	\$ 2,332	\$ 137	\$ 667	\$ 27
Number of bills	- Rate 131 (12/yr)		15,889		
	- Rate 133 (6/yr)		38,436		
	- Rate 233 (6/yr)				10,213
Average site- related monthly					
cost	- Rate 131 <sup>11</sup>		\$ 27.66		
	- Rate 133 <sup>12</sup>		\$ 52.80		
	- Rate 233 <sup>13</sup>				\$ 67.95

Note that the values included in Table 12 in the 2020 Cost Allocation Study are based on unrounded cost figures, whereas the calculations displayed above are based on rounded costs.

<sup>&</sup>lt;sup>11</sup> Rate 131 = \$2,332,000/(15,889 + 38,436 \* 2) + \$137,000/(15,889 + 38,436) = \$27.66

Rate 133 = \$2,332,000/(15,889/2 + 38,436) + \$137,000/(15,889 + 38,436) = \$52.80

Rate 233 = (\$667,000 + \$27,000)/10,213 = \$67.95

b. Maritime Electric is not proposing a change in the seasonal monthly service charges at this time. The Company is currently considering the future installation of an AMI metering platform, which would include a remote connect/disconnect function. If this proceeds, the underlying methodology assumptions of all service charges will need to be revisited, as discussed in Section 9.1 of the Stage 1 Rate Design Application.

IR-13 Please provide the number of Residential customers whose 2019 average monthly usage falls into usage bins of 100 kWh. That is, provide the number of Residential customers whose average monthly usage ranges from 0 - 100 kWh, 101 - 200 kWh, etc.

### Response:

The number of Residential customers whose 2019 average monthly usage falls into usage bins of 100 kWh are provided in IR-13 - Attachment 1.

Note that if a range is not provided in the table in Attachment 1, there were no customers whose average consumption fell in that range in 2019.

IR-14 Please provide the number of Residential customers whose 2020 average monthly usage falls into usage bins of 100 kWh. That is, provide the number of Residential customers whose average monthly usage ranges from 0 - 100 kWh, 101 - 200 kWh, etc.

### Response:

The number of Residential customers whose 2020 average monthly usage falls into usage bins of 100 kWh are provided in IR-14 - Attachment 1.

Note that if a range is not provided in the table in Attachment 1, there were no customers whose average consumption fell in that range in 2020.

IR-15 Please provide an electronic spreadsheet with the hourly usage data for each customer in the load research study for Residential and General Service Customers. Please provide include the date, hour, and class designation for each customer and provide the data for the longest timeframe available.

### Response:

The requested data is provided in IR-15 – Attachment 1.

The load research involved approximately 170 Residential customers and approximately 420 General Service customers. Installation of the Residential interval meters was completed during November 2019, while installation of the General Service interval meters was completed in early March 2020.

	(UE22503) Rate Design
Maritime Electric	Interrogatories from Synapse Energy Economics, Inc

IR-16 Please provide an electronic spreadsheet with total hourly system load for 2018, 2019, and 2020.

### Response:

The hourly system load data for 2018, 2019 and 2020 is provided in IR-16 - Attachment 1 - Maritime Electric Hourly Data 2018-2020<sup>14</sup>.

<sup>&</sup>lt;sup>14</sup> Note that this information is provided in an electronic format only.

	(UE22503) Rate Design
Maritime Electric	Interrogatories from Synapse Energy Economics, Inc.

IR-17 Please provide an electronic spreadsheet with net hourly system load for 2018, 2019, and 2020.

### Response:

The net hourly system load on PEI is essentially the same as the total hourly system load, as provided in IR-16. This is a result of minimal operation of combustion turbine generation on-Island and, therefore, station service for generation is negligible on an hourly basis and is measured on a monthly basis.

	(UE22503) Rate Design
ritime Flectric	Interrogatories from Synapse Energy Economics, Inc.

IR-18 For the Small Industrial class, please provide an electronic spreadsheet with the hourly class load for each year 2018, 2019, and 2020.

### Response:

Small Industrial rate class customers are not metered hourly, so this information is not available.

	(UE22503) Rate Design
aritime Electric	Interrogatories from Synapse Energy Economics, Inc

IR-19 For the Large Industrial class please provide an electronic spreadsheet with the hourly class load for each year 2018, 2019, and 2020.

### Response:

The hourly Large Industrial class load for each year 2018, 2019, and 2020 is provided in IR-19 – Large Industrial Hourly  $2018 - 2020^{15}$ .

Note that this information is provided in an electronic format only.

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IR-20 For the Small Industrial class, please provide the annual customer energy usage (kWh) and maximum monthly billed demand (kW) for each customer for each year 2018, 2019, and 2020.

### Response:

An electronic file titled *Synapse IR 20 Small Industrial Cons & Demand 2018-2020.xlsx* provides the annual customer energy usage (kWh) and maximum monthly billed demand (kW) for each Small Industrial customer for each year 2018, 2019, and 2020<sup>16</sup>.

Note that this information is provided in an electronic format only.

IR-21 Please provide the average number of customers and total energy consumption for each class for each year 2017 through 2020.

### Response:

The average number of customers and total energy consumption for each class for each year 2017 through 2020 are provided in the following table.

	201	7	201	8	201	9	2020		
Class	kWh	Average # Customers	kWh	Average # Customers	kWh	Average # kWh Customers		Average # Customers	
Residential	101 705 100	05.007	100 004 100	05.000	004.044.400	00.000	000 005 544	00.700	
Urban	181,705,182	25,307	193,634,426	25,666	201,914,196	26,063	220,205,514	26,769	
Residential Rural	375,678,446	34,041	397,447,892	34,510	416,523,321	35,009	431,300,357	35,539	
Residential Seasonal	19,630,352	8,610	21,680,823	8,777	22,513,734	8,827	20,423,466	9,054	
General Service	375,659,443	7,193	383,707,424	7,275	383,375,767	7,387	363,528,292	7,490	
General Service Seasonal	9,259,025	1,709	9,848,441	1,729	9,415,324	1,719	6,932,627	1,695	
Large Industrial	133,621,837	3	151,702,962	6	154,031,034	6	151,757,762	6	
Small Industrial	104,569,569	294	91,653,039	295	91,697,514	295	91,606,280	288	
Street & Yard Lighting	5,518,763	3,318	5,175,526	3,407	4,909,985	3,424	4,493,676	3,518	
Unmetered Rate	2,415,611	144	2,458,006	141	2,479,445	141	2,500,784	141	
TOTAL	1,208,058,228	80,619	1,257,308,539	81,807	1,286,860,320	82,871	1,292,748,758	84,501	

IR-22 Refer to MECL's Rate Design Application, filed on May 14, 2021. Using the 2017 Cost Allocation Study revenue requirement, please provide the specific rates that the Company is proposing for each class.

### Response:

IR-22 - Attachment 1 is a draft Schedule N-28 showing the proposed rates, which are the current rates approved by the Commission adjusted to reflect the Stage 1 Rate Design Application filed on May 14, 2021. It should be noted that the rates provided in this response do not reflect any rate changes that may be necessary due to changes in the Company's revenue requirement and approved by the Commission through a General Rate Application as discussed in Section 5.0 of the Stage 1 Rate Design Application.

IR-23 Refer to MECL's Rate Design Application, filed on May 14, 2021. Using the 2020 Cost Allocation Study revenue requirement, please provide the specific rates that the Company is proposing for each class.

### Response:

As indicated in the Company's letter dated July 21, 2021 to the Commission accompanying the 2020 Cost Allocation Study, the Company is not proposing any changes to the Stage 1 Rate Design Application as a result of the 2020 Cost Allocation Study. Hence, rates provided in IR-22 - Attachment 1 are the same for this response.

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IR-24 Refer to pages 29-30 of MECL's Rate Design Application, filed on May 14, 2021. Please provide the electronic workpapers showing the calculation of rate impacts in Chart 1 and Chart 2.

### Response:

The electronic workpapers showing the calculation of rate impacts in Chart 1 and Chart 2 on pages 29-30 of Maritime Electric's Rate Design Application, filed on May 14, 2021 are provided in the excel file *Synapse IRs 8b 24 and 25 – Application Tables and Charts.xlsx*<sup>17</sup>.

Note that this information is provided in an electronic format only.

	(UE22503) Rate Design
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IR-25 Refer to MECL's Rate Design Application, filed on May 14, 2021, pages 34-36. Please provide the electronic workpapers for Table 7, Table 8, and Table 9.

### Response:

The electronic workpapers for Table 7, Table 8, and Table 9 on pages 34-36 of Maritime Electric's Rate Design Application, filed on May 14, 2021 are provided in the excel file *Synapse IRs 8b 24* and 25 – Application Tables and Charts.xlsx<sup>18</sup>.

Note that this information is provided in an electronic format only.

IR-26 Refer to page 2 of Appendix A of MECL's Rate Design Application, filed on May 14, 2021.

- a. Please provide the electronic workpapers used to create this chart.
- b. Please explain why the percentage increase in this chart is greater than the percentage increases shown on pages 29-30 of the Rate Design Application after the elimination of the second energy block in the Residential Rate.

### Response:

- a. The requested data is provided in the Excel spreadsheet labelled Synapse *IR 26 Chart 1 Appendix A Farm Study*<sup>19</sup>.
- b. The chart on page 2 of Appendix A shows the combined bill impact of the elimination of the declining second block plus an incremental rate increase applied across the class required to bring the RTC ratio of the Residential class to the minimum 0.95 per cent range. The charts on pages 29 and 30 show only the bill impact of the elimination of the declining second block.

Note that this information is provided in an electronic format only.

IR-27 Did MECL consider creating a separate rate schedule for Farm customers? If yes, please explain why this option was not selected by the Company. If no, please explain why not.

### Response:

Maritime Electric did consider creating a separate rate class for Farm customers. However, it was not presented as an option because the Company believes the better option is to allow farms to be eligible for service under the Small Industrial rate for the following reasons:

- 1. The number of customers and size of the load in a separate Farm rate would be small, and class cost estimation could be affected by a few large customers.
- 2. The existing Small Industrial rate class, which has a demand charge and a first energy block that is sized in proportion to the monthly metered demand, is appropriate for large farms, especially given the wide range of load factors observed for individual farm loads.

IR-28 Refer to page 4 of Appendix D of MECL's Rate Design Application, filed on May 14, 2021. Please describe the 45 customers with non-Domestic and non-Farm usage with >5,000 kWh billed for January 2020. Please explain the nature of the electricity usage and whether these customers would be more appropriately served on a different tariff.

### Response:

These customers have been classified as Residential as per Section N-2 Residential Service Rate Guidelines of the Company's Rates and General Rules and Regulations, It is worth noting that neither the Boutilier Study nor the Multeese Consulting Incorporated Report on the 2019 General Rate Application recommended changes to the Company's existing service classifications or guidelines for service.

The following table provides a breakdown of the 45 "other usage" customers with consumption greater than 5,000 kWh in January 2020 according to the nature of their electricity usage.

Description of 45 "Other Usage" Customer	s > 5,000 kWh Consumption in January 2020
Nature of Electricity Usage	Number of Customers
Cannabis grow operation	2
Fish farming	3
Agricultural related	9
Religious organizations	16
Gov't housing facilities	4
Misc. commercial operations	11
	45

As discussed on page 31 of the Stage 1 Rate Design Application, a significant portion of these customers would also be eligible for service under the Small Industrial rate class and the Company anticipates that this will occur after step 2 of the elimination of the declining second block. Similar to farms, the Company is committed to working with these customers to evaluate the options available to them for service and ensure they are appropriately classified.

IR-29 Refer to Appendix D of MECL's Rate Design Application, filed on May 14, 2021.

- a. For each month of 2019 and 2020, please provide the number of customers in the Residential class with hourly data available.
- b. For each month of 2019 and 2020, please provide the number of customers in the General Service class with hourly data available.
- c. For each month of 2019 and 2020, please provide the number of farm customers with hourly data available.

### Response:

### a. & b.

The installation of Residential and General Service bridge meters started in the first quarter of 2019 and was completed by April 2020. Vendor meter delivery delays contributed to the prolonged installation period.

The data presented below indicates the number of meters in service that provided a complete month of data (i.e., a reading for each hour of the month).

	2019	) Data	2020	) Data <sup>20</sup>
	Residential	General Service	Residential	General Service
January	0	0	173	210
February	4	4	173	353
March	7	4	174	388
April	41	51	180	403
May	56	60	180	406
June	57	61	184	401
July	56	61	185	405
August	63	84	187	408
September	76	104	148	335
October	134	152	102	195
November	154	186	159	305
December	171	202	166	378

c. The Farm Study included 87 farms. In most months, a full set of data was recovered from each meter; however, there were several months where month of data was not recovered. These months are highlighted in the table below.

In December 2020, an additional 19 Residential and 23 General Service meters had all the monthly hourly data except for the last four hours of the month, and they are therefore excluded from the table.

86

86

	Farm Study Mete	rs		
Month	2019 Data	2020 Data		
January	86 <sup>21</sup>	87		
February	86	87		
March	87 <sup>22</sup>	87		
April	87	87		
May	87	87		
June	87	87		
July	87	87		
August	87	87		
September	86	87		
October	86	87		

8723

86

November

December

In January 2019, 86 meters had 740 hourly readings each, instead of a potential maximum of 744 hourly readings each.

In March 2019, all 87 meters had 742 hourly readings each, instead of a potential maximum of 743 hourly readings each. Clocks move ahead one hour in March as Daylight Savings Time ends.

In November 2019, 82 meters had 722 hourly readings each, instead of a potential maximum of 721 hourly readings each. Clocks move back one hour in November as Daylight Savings time begins.



# Attachment IR-13 - Attachment 1

## 2019 Count of Residential Accounts in 100 kWh Ranges of Average Monthly Usage

kWh R	Range	Customer	kWh Ra	ange	Customer	kWh I	Range	Customer	kWh F	kWh Range		kWh F	Range	Customer
Start	End	Count	Start	End	Count	Start	End	Count	Start	End	Count	Start	End	Count
0	0	355	3,601	3,700	36	7,301	7,400	5	11,601	11,700	5	19,401	19,500	2
1	100	3,003	3,701	3,800	36	7,401	7,500	4	11,801	11,900	1	19,601	19,700	1
101	200	6,329	3,801	3,900	20	7,501	7,600	7	11,901	12,000	3	20,301	20,400	1
201	300	6,397	3,901	4,000	22	7,601	7,700	6	12,001	12,100	2	20,701	20,800	1
301	400	6,277	4,001	4,100	17	7,701	7,800	3	12,301	12,400	1	20,901	21,000	1
401	500	6,360	4,101	4,200	21	7,801	7,900	4	12,501	12,600	2	21,401	21,500	1
501	600	6,045	4,201	4,300	20	7,901	8,000	8	12,701	12,800	2	21,601	21,700	1
601	700	5,569	4,301	4,400	19	8,001	8,100	7	12,801	12,900	1	22,201	22,300	1
701	800	4,822	4,401	4,500	11	8,101	8,200	5	12,901	13,000	4	22,501	22,600	1
801	900	3,884	4,501	4,600	24	8,201	8,300	6	13,101	13,200	1	23,301	23,400	1
901	1,000	3,347	4,601	4,700	24	8,301	8,400	1	13,201	13,300	2	23,501	23,600	1
1,001	1,100	2,698	4,701	4,800	11	8,401	8,500	3	13,401	13,500	2	23,801	23,900	1
1,101	1,200	2,236	4,801	4,900	14	8,601	8,700	3	13,501	13,600	3	25,301	25,400	1
1,201	1,300	1,903	4,901	5,000	19	8,701	8,800	4	13,701	13,800	2	27,401	27,500	1
1,301	1,400	1,605	5,001	5,100	15	8,801	8,900	3	13,801	13,900	1	27,701	27,800	1
1,401	1,500	1,347	5,101	5,200	9	8,901	9,000	3	14,001	14,100	1	28,501	28,600	1
1,501	1,600	1,172	5,201	5,300	9	9,001	9,100	5	14,101	14,200	1	29,701	29,800	1
1,601	1,700	940	5,301	5,400	17	9,101	9,200	1	14,401	14,500	1	31,201	31,300	1
1,701	1,800	732	5,401	5,500	9	9,201	9,300	1	14,801	14,900	2	36,801	36,900	1
1,801	1,900	690	5,501	5,600	4	9,301	9,400	1	15,401	15,500	3	41,101	41,200	1
1,901	2,000	553	5,601	5,700	6	9,401	9,500	2	15,501	15,600	2	42,301	42,400	1
2,001	2,100	441	5,701	5,800	10	9,501	9,600	3	15,601	15,700	1	50,301	50,400	1
2,101	2,200	372	5,801	5,900	8	9,601	9,700	1	15,701	15,800	1	52,101	52,200	1
2,201	2,300	339	5,901	6,000	8	9,701	9,800	3	16,001	16,100	1	54,601	54,700	1
2,301	2,400	271	6,001	6,100	7	9,801	9,900	2	16,601	16,700	1	58,201	58,300	1
2,401	2,500	210	6,101	6,200	3	9,901	10,000	1	16,701	16,800	2	60,801	60,900	1
2,501	2,600	199	6,201	6,300	5	10,201	10,300	1	16,901	17,000	1	66,401	66,500	1
2,601	2,700	142	6,301	6,400	6	10,401	10,500	2	17,001	17,100	1	74,501	74,600	1
2,701	2,800	116	6,401	6,500	6	10,501	10,600	3	17,601	17,700	1	318,301	318,400	1
2,801	2,900	123	6,501	6,600	6	10,601	10,700	3	17,901	18,000	1		Total:	69,590
2,901	3,000	103	6,601	6,700	2	10,801	10,900	3	18,101	18,200	2			
3,001	3,100	76	6,701	6,800	4	11,001	11,100	2	18,201	18,300	1			
3,101	3,200	72	6,801	6,900	9	11,101	11,200	2	18,501	18,600	1			
3,201	3,300	62	6,901	7,000	7	11,201	11,300	2	18,601	18,700	1			
3,301	3,400	43	7,001	7,100	7	11,301	11,400	1	19,001	19,100	1			
3,401	3,500	54	7,101	7,200	3	11,401	11,500	3	19,101	19,200	2			
3,501	3,600	40	7,201	7,300	3	11,501	11,600	1	19,201	19,300	1			



# Attachment IR-14 - Attachment 1

## 2020 Count of Residential Accounts in 100 kWh Rages of Average Monthly Usage

kWh R	ange	Customer	kWh R	Range	Customer	kWh R	ange	Customer	kWh F	Range	Customer	kWh F	Range	Customer	kWh F	Range	Customer
Start	End	Count	Start	End	Count	Start	End	Count	Start	End	Count	Start	End	Count	Start	End	Count
0	0	1,064	3,001	3,100	72	6,101	6,200	6	9,301	9,400	4	13,301	13,400	2	20,301	20,400	1
1	100	3,509	3,101	3,200	61	6,201	6,300	9	9,401	9,500	2	13,401	13,500	3	20,501	20,600	1
101	200	5,967	3,201	3,300	54	6,301	6,400	9	9,501	9,600	3	13,501	13,600	2	20,701	20,800	1
201	300	6,076	3,301	3,400	47	6,401	6,500	5	9,601	9,700	2	13,601	13,700	1	20,801	20,900	2
301	400	6,007	3,401	3,500	39	6,501	6,600	6	9,801	9,900	2	13,701	13,800	2	21,001	21,100	1
401	500	6,096	3,501	3,600	37	6,601	6,700	5	9,901	10,000	3	13,801	13,900	1	22,401	22,500	1
501	600	5,999	3,601	3,700	40	6,701	6,800	3	10,001	10,100	3	14,101	14,200	1	22,901	23,000	1
601	700	5,616	3,701	3,800	25	6,801	6,900	4	10,101	10,200	2	14,301	14,400	1	23,601	23,700	1
701	800	4,908	3,801	3,900	25	6,901	7,000	3	10,301	10,400	3	14,601	14,700	3	24,101	24,200	1
801	900	4,258	3,901	4,000	21	7,001	7,100	3	10,401	10,500	2	14,801	14,900	1	24,901	25,000	1
901	1,000	3,582	4,001	4,100	27	7,101	7,200	8	10,501	10,600	3	15,001	15,100	1	27,701	27,800	1
1,001	1,100	2,965	4,101	4,200	21	7,201	7,300	6	10,601	10,700	2	15,101	15,200	2	28,701	28,800	2
1,101	1,200	2,548	4,201	4,300	18	7,301	7,400	5	10,801	10,900	1	15,201	15,300	1	31,801	31,900	1
1,201	1,300	2,074	4,301	4,400	21	7,401	7,500	5	10,901	11,000	3	15,501	15,600	1	35,801	35,900	1
1,301	1,400	1,709	4,401	4,500	13	7,501	7,600	10	11,001	11,100	1	15,801	15,900	1	40,001	40,100	1
1,401	1,500	1,464	4,501	4,600	20	7,601	7,700	9	11,201	11,300	1	15,901	16,000	2	42,601	42,700	1
1,501	1,600	1,203	4,601	4,700	16	7,701	7,800	6	11,301	11,400	1	16,101	16,200	1	45,401	45,500	1
1,601	1,700	942	4,701	4,800	15	7,801	7,900	6	11,401	11,500	1	16,201	16,300	2	46,701	46,800	1
1,701	1,800	858	4,801	4,900	14	7,901	8,000	6	11,601	11,700	1	16,301	16,400	1	48,301	48,400	1
1,801	1,900	691	4,901	5,000	17	8,001	8,100	2	11,701	11,800	3	16,601	16,700	1	56,201	56,300	1
1,901	2,000	550	5,001	5,100	8	8,101	8,200	4	11,901	12,000	2	16,701	16,800	1	59,701	59,800	1
2,001	2,100	422	5,101	5,200	14	8,201	8,300	3	12,001	12,100	2	16,801	16,900	1	63,001	63,100	1
2,101	2,200	396	5,201	5,300	11	8,301	8,400	7	12,101	12,200	1	16,901	17,000	2	83,901	84,000	1
2,201	2,300	314	5,301	5,400	8	8,401	8,500	1	12,201	12,300	1	17,201	17,300	1	130,601	130,700	1
2,301	2,400	265	5,401	5,500	10	8,501	8,600	4	12,501	12,600	2	17,301	17,400	1	327,101	327,200	1
2,401	2,500	212	5,501	5,600	10	8,601	8,700	1	12,601	12,700	2	17,501	17,600	1	621,101	621,200	1
2,501	2,600	182	5,601	5,700	7	8,701	8,800	4	12,701	12,800	1	18,201	18,300	1		Total:	71,342
2,601	2,700	159	5,701	5,800	7	8,801	8,900	2	12,901	13,000	5	19,201	19,300	1			
2,701	2,800	124	5,801	5,900	3	8,901	9,000	6	13,001	13,100	2	19,601	19,700	1			
2,801	2,900	102	5,901	6,000	8	9,001	9,100	2	13,101	13,200	4	20,001	20,100	1			
2,901	3,000	97	6,001	6,100	5	9,101	9,200	3	13,201	13,300	1	20,101	20,200	1			



# Attachment IR-22 - Attachment 1

Maritime Electric Company, Limited Schedule of Rates												
Rate		Approv	red UE20-04	Proposed								
Code			ıary 1, 2021	Ма	rch 1, 2022	Ма	rch 1, 2023	•	March 1, 2024	March 1, 2025		
110	Residential											
'''	Service Charge	\$	24.57	\$	24.57	\$	24.57	\$	24.57	\$ 24.57		
	Energy Charge per kWh for first 2,000 kWh	\$	0.1492		0.1492	\$	0.1492		0.1492	•		
	Energy Charge per kWh for balance kWh	\$	0.1188		0.1264		0.1340	-	0.1416	·		
130	Residential Rural											
	Service Charge	\$	26.92	\$	26.92	\$	24.57	\$	24.57	\$ 24.57		
	Energy Charge per kWh for first 2,000 kWh	\$	0.1492		0.1492		0.1492	-	0.1492	·		
	Energy Charge per kWh for balance kWh	\$	0.1188	\$	0.1264	\$	0.1340	\$	0.1416	\$ 0.1492		
131	Residential Seasonal											
	Service Charge	\$	26.92		26.92		26.92		26.92	•		
	Energy Charge per kWh for first 2,000 kWh	\$	0.1492		0.1492		0.1492		0.1492	•		
	Energy Charge per kWh for balance of kWh	\$	0.1188	\$	0.1264	\$	0.1340	\$	0.1416	\$ 0.1492		
133	Residential Seasonal Option	•				•		•				
	Service Charge	\$	37.50		37.50		37.50		37.50	•		
	Energy Charge per kWh for first 2,000 kWh Energy Charge per kWh for balance of kWh	\$ \$	0.1492 0.1188		0.1492 0.1264	\$ \$	0.1492 0.1340		0.1492 0.1416	•		
232	General Service											
	Service Charge	\$	24.57	\$	24.57	\$	24.57	\$	24.57	\$ 24.57		
	Demand Charge - per kW for first 20 kW	\$	-	\$	-	\$	-	\$	-	\$ -		
	Demand Charge - per kW for balance of kW	\$	13.43	\$	13.43	\$	13.43	\$	13.43	·		
	Energy Charge per kWh for first 5,000 kWh	\$		\$	0.1790		0.1766		0.1742	·		
	Energy Charge per kWh for balance of kWh	\$	0.1201	\$	0.1176	\$	0.1160	\$	0.1145	\$ 0.1129		
233	General Service - Seasonal Operators Option	•				•		•		•		
	Service Charge	\$	24.57	\$	24.57	\$	24.57	\$	24.57	\$ 24.57		
	Demand Charge - per kW for first 20 kW  Demand Charge - per kW for balance of kW	\$ ¢	- 13.43	\$	- 13.43	\$ \$	- 13.43	\$ \$	- 13.43	\$ - \$ 13.43		
	Energy Charge per kWh for first 5,000 kWh	\$ \$	0.1831	\$	0.1790		0.1766		0.1742	•		
	Energy Charge per kWh for balance of kWh	\$		\$	0.1176		0.1160		0.1145	•		
320	Small Industrial											
	Demand Charge - per kW	\$	7.46	\$	7.46	\$	7.46	\$	7.46	\$ 7.46		
	Energy Charge per kWh for first 100 kWh per kW billing demand	\$	0.1794	\$	0.1794	\$	0.1794	\$	0.1794	\$ 0.1794		
	Energy Charge per kWh for balance of kWh	\$	0.0910	\$	0.0910	\$	0.0910	\$	0.0910	\$ 0.0910		
310	Large Industrial											
	Demand Charge per kW	\$	14.50		14.50		14.50		14.50			
	Energy Charge per kWh	\$	0.0740	\$	0.0780	\$	0.0780	\$	0.0780	\$ 0.0780		
340	Long Term Contract (Currently no customers in this rate category)	_						_		•		
	Demand Charge per kWh Energy Charge per kWh	\$ \$	15.51 0.1004		15.51 0.1004		15.51 0.1004		15.51 0.1004	·		
222		Ť				*		*	3	, 21100		
330	Short Term Contract (Currently no customers in this rate category)  Demand Charge - per kW	\$	16.79	\$	16.79	\$	16.79	\$	16.79	\$ 16.79		
	Energy Charge per kWh for all kWh in the first block	Ψ \$	0.0995		0.0995		0.0995	Ф \$	0.0995	\$ 0.0995		
	Energy Charge per kWh for balance of kWh in the month	\$	0.0828		0.0828		0.0993		0.0828	\$ 0.0828		

1

### **Maritime Electric Company, Limited Schedule of Rates Proposed Annual** Approved UE20-04 Monthly kWh kWh January 1, 2021 March 1, 2022 March 1, 2023 March 1, 2024 March 1, 2025 Residential Type 70 W HPS Equivalent St Lights - Rented LED 12.43 \$ 12.89 \$ 13.37 \$ 13.37 \$ 13.37 619 15 LED 12.86 \$ \$ 13.83 \$ \$ 625 100 W HPS Equivalent St Lights - Rented 17 \$ 13.34 13.83 13.83 630 **HPS** St Lights - Rented 32 \$ 16.44 \$ 17.05 \$ 17.68 \$ 17.68 \$ 17.68 389 **HPS** \$ \$ \$ 631 St Lights - Rented 553 46 \$ 20.88 \$ 21.65 22.45 22.45 22.45 632 **HPS** 799 66 \$ 29.85 \$ 30.95 \$ 32.10 \$ 32.10 \$ 32.10 St Lights - Rented **HPS** 40.59 43.65 \$ \$ 633 St Lights - Rented 1283 106 \$ \$ 42.09 \$ 43.65 43.65 \$ \$ HPS \$ \$ \$ 634 St Lights - Rented 1886 157 47.47 49.23 51.05 51.05 51.05 \$ \$ \$ 16.28 \$ \$ 17.50 635 MV St Lights - Rented 656 54 16.88 17.50 17.50 \$ \$ \$ 639 Lanterns City Lanterns - Rented 389 32 \$ 60.43 \$ 62.67 64.99 64.99 64.99 **HPS** \$ 6.70 \$ 6.95 \$ 640 32 \$ 6.46 \$ 6.95 St Lights - Owned 389 6.95 HPS \$ 641 46 \$ \$ \$ \$ St Lights - Owned 553 8.52 8.84 9.17 9.17 9.17 642 HPS \$ \$ \$ \$ St Lights - Owned 779 65 \$ 11.44 11.86 12.30 12.30 12.30 **HPS** \$ \$ 643 1283 107 \$ 18.13 \$ 18.80 19.50 19.50 \$ 19.50 St Lights - Owned **HPS** St Lights - Owned 28.59 \$ 29.65 \$ 30.75 \$ 30.75 \$ 644 1886 157 \$ 30.75 1.20 651 LED 78 7 \$ 1.16 \$ \$ \$ 1.24 \$ 1.24 1.24 St Lights - Owned \$ \$ \$ \$ 652 LED St Lights - Owned 246 21 \$ 3.67 3.81 3.95 3.95 3.95 LED St Lights - Owned 205 17 \$ 3.06 \$ \$ 3.29 \$ 3.29 \$ 653 3.17 3.29 666 LED 25 14.31 \$ 14.84 \$ 15.39 \$ 15.39 \$ 15.39 175 W MV Equivalent St Lights - Rented \$ 670 LED St Lights - Rented 410 34 \$ 16.64 \$ 17.26 \$ 17.90 \$ 17.90 \$ 17.90 \$ \$ 675 LED 150 W/200 W HPS Equivalent St Lights - Rented 37 \$ 15.46 \$ 16.03 \$ 16.62 16.62 16.62 \$ \$ \$ 719 LED St Lights - Owned 176 15 \$ 2.63 \$ 2.73 2.83 2.83 2.83 \$ \$ \$ \$ 730 HPS 389 32 \$ 17.68 Yard Lights - Rented 16.44 17.05 17.68 17.68 731 **HPS** 553 \$ 20.88 \$ \$ 22.45 \$ \$ Yard Lights - Rented 46 21.65 22.45 22.45 732 **HPS** 799 \$ \$ 32.10 \$ \$ 66 \$ 29.85 30.95 32.10 32.10 Yard Lights - Rented 733 **HPS** Yard Lights - Rented 1283 106 \$ 40.59 \$ 42.09 \$ 43.65 \$ 43.65 \$ 43.65 \$ \$ \$ 734 **HPS** Yard Lights - Rented 1886 157 \$ 47.47 \$ 49.23 51.05 51.05 51.05 \$ 16.28 \$ \$ \$ \$ 735 ΜV Yard Lights - Rented 656 54 16.88 17.50 17.50 17.50 737 MV Yard Lights - Rented 1210 100 \$ 28.79 \$ 29.86 \$ 30.96 \$ 30.96 \$ 30.96 **HPS** 6.46 \$ \$ \$ 740 Yard Lights - Owned 389 32 \$ 6.70 6.95 6.95 \$ 6.95 \$ 741 **HPS** 553 46 \$ 8.52 \$ \$ \$ 9.17 Yard Lights - Owned 8.84 9.17 9.17 742 **HPS** 65 11.44 \$ \$ \$ Yard Lights - Owned 779 \$ \$ 11.86 12.30 12.30 12.30 HPS 18.13 \$ 19.50 \$ \$ 743 Yard Lights - Owned 1283 107 \$ \$ 18.80 19.50 19.50 744 **HPS** Yard Lights - Owned 1886 157 \$ 28.59 \$ 29.65 \$ 30.75 \$ 30.75 \$ 30.75 LPS \$ 14.34 \$ \$ 749 Yard Lights - Owned 869 72 \$ 13.34 \$ 13.83 14.34 14.34 753 Flood 1283 107 38.73 \$ 40.16 \$ 41.65 \$ 41.65 \$ Yard Lights - Rented \$ 41.65 \$ 754 Flood Yard Lights - Rented 1886 157 \$ 48.21 \$ 49.99 \$ 51.84 51.84 \$ 51.84 \$ \$ 755 \$ 40.79 \$ \$ 43.87 43.87 Halide Yard Lights - Rented 1148 95 42.30 43.87 \$ \$ \$ 756 Halide Yard Lights - Rented 1878 156 \$ 50.20 \$ 52.06 53.99 53.99 53.99 757 Halide Yard Lights - Rented 4346 362 \$ 86.16 \$ 89.35 \$ 92.66 \$ 92.66 \$ 92.66 St Lights - Owned \$ \$ \$ 759 Halide 533 44 \$ 7.96 \$ 8.25 8.56 8.56 8.56 760 74 13.86 \$ \$ \$ Halide St Lights - Owned 894 \$ 13.37 \$ 14.37 14.37 14.37 \$ 761 95 \$ 17.15 \$ \$ 18.44 \$ Halide St Lights - Owned 1148 17.78 18.44 18.44 St Lights - Owned \$ \$ \$ 762 Halide 1878 156 \$ 28.04 \$ 29.08 30.16 30.16 30.16 764 LED 410 34 \$ 6.12 \$ \$ 6.58 \$ 6.58 \$ St Lights - Owned 6.35 6.58 765 Halide 759 63 \$ 11.33 \$ 11.75 \$ 12.18 \$ 12.18 \$ 12.18 St Lights - Owned 766 LED 25 4.40 \$ \$ \$ \$ St Lights - Owned 295 4.56 4.73 4.73 4.73 775 37 \$ \$ \$ \$ LED St Lights - Owned 438 \$ 6.54 6.78 7.03 7.03 7.03 St Lights - Owned \$ 8.75 \$ \$ \$ \$ 780 LED 586 49 9.07 9.41 9.41 9.41 785 LED St Lights - Owned 718 60 10.70 11.10 11.51 \$ 11.51 \$ 11.51

These charges are applicable to existing fixtures only.

Residential   Unmetered Rates (based on 100 watt fixture)	Maritime Electric Company, Limited													
Second Commend Contentinate Lighting - 5.77¢ por watt of connected load per week	Schedule of Rates													
Foliage   Figure			Approved UE20-04											
Residential   Unmetered Rates (based on 100 watt fixture)				January 1, 2021		March 1, 2022	March 1, 2023			March 1, 2024		March 1, 2025		
Residential   Unmetered Rates (based on 100 watt fixture)														
Residential   Unmetered Rates (based on 100 watt fixture)														
Unmetered Rates (based on 100 watt fixture)   10	610		\$	4.38	\$	4.38	\$	4.38	\$	4.38	\$	4.38		
810 B Hour Lighting per kWh   \$ 0.1790 \$ 0.179														
Minimum Charge		· · · · · · · · · · · · · · · · · · ·	_		_		_		_		_			
820   12 Hour Lighting per kWh   \$ 0.1790	810		\$									0.1790		
Minimum Charge		· · · · · · · · · · · · · · · · · · ·	\$		-									
830   24 Hour Lighting per kWh   \$ 0.1790   \$ 0.1679   \$ 0.1679   \$ 0.1679   \$ 0.1679   \$ 0.1679   \$ 0.1679   \$ 0.1679   \$ 0.1790	820		\$								•	0.1790		
Minimum Charge   \$   11.67			\$								•	11.67		
Air Raid & Fire Sirens   Currently no customers in this rate category	830		\$		-						•	0.1790		
Stort Term Unmetered Rates   Currently no customers in this rate category		<del>y</del>	\$	11.67	\$						\$	11.67		
234   Customer Owned Outdoor Recreational Lighting   Service Charge   \$ 24.57 \$ 24.5	840					Currently no	cust	omers in this rate cate	gory	•				
Service Charge	850	Outdoor Christmas Lighting - 5.77¢ per watt of connected load per wee	k											
Service Charge														
Energy Charge per kWh for first 5,000 kWh \$ 0.1790 \$ 0.1790 \$ 0.1790 \$ 0.1790 \$ 0.1790 \$ 0.1790 \$ 0.1790 \$ 0.1790 \$ 0.1790 \$ 0.1099 \$ 0.10	234		_		_		_		_		_			
Energy Charge per kWh for balance of kWh		•										24.57		
Short Term Unmetered Rates Energy Charge: per kWh of estimated consumption \$ 0.1790		Energy Charge per kWh for first 5,000 kWh									•	0.1790		
Energy Charge:     per kWh of estimated consumption \$ 0.1790 \$ 0.1		Energy Charge per kWh for balance of kWh	\$	0.1099	\$	0.1099	\$	0.1099	\$	0.1099	\$	0.1099		
Energy Charge:     per kWh of estimated consumption \$ 0.1790 \$ 0.1														
Energy Charge:     per kWh of estimated consumption \$ 0.1790 \$ 0.1		Short Term Unmetered Rates				Currently no								
Connection Charge: A. Connecting to existing secondary voltage  B. Where transformer installations are required, the following connection charges will apply:  Single-Phase  Single-Phase  Three-Phase  (1) Up to and including 10 kVA  (2) 11 kVA to 15 kVA  (3) 16 kVA to 25 kVA  (4) 26 kVA to 37 kVA  Single-Phase  Three-Phase  \$209.17  \$336.64		Energy Charge:				•								
A. Connecting to existing secondary voltage \$99.08 \$99.08  B. Where transformer installations are required, the following connection charges will apply:    Single-Phase   Three-Phase		per kWh of estimated consumption	\$	0.1790	\$	0.1790	\$	0.1790	\$	0.1790	\$	0.1790		
A. Connecting to existing secondary voltage \$99.08 \$99.08  B. Where transformer installations are required, the following connection charges will apply:    Single-Phase   Three-Phase														
B. Where transformer installations are required, the following connection charges will apply:    Single-Phase   Three-Phase		nnection Charge: Single-Phase								Three-Phase				
Single-Phase Three-Phase (1) Up to and including 10 kVA (2) 11 kVA to 15 kVA (3) 16 kVA to 25 kVA (4) 26 kVA to 37 kVA  Single-Phase Three-Phase \$209.17 \$209.17 \$301.01 \$331.01 \$336.64											\$99.08			
(1) Up to and including 10 kVA       \$148.87       \$209.17         (2) 11 kVA to 15 kVA       \$240.79       \$301.01         (3) 16 kVA to 25 kVA       \$269.20       \$336.64         (4) 26 kVA to 37 kVA       \$301.01       \$336.64		B. Where transformer installations are required, the following connection charges will apply:												
(1) Up to and including 10 kVA       \$148.87       \$209.17         (2) 11 kVA to 15 kVA       \$240.79       \$301.01         (3) 16 kVA to 25 kVA       \$269.20       \$336.64         (4) 26 kVA to 37 kVA       \$301.01       \$336.64		Single-Phase Three										Three-Phase		
(2) 11 kVA to 15 kVA \$301.01 (3) 16 kVA to 25 kVA \$269.20 \$336.64 (4) 26 kVA to 37 kVA \$301.01 \$336.64		· ·												
(3) 16 kVA to 25 kVA \$269.20 \$336.64 (4) 26 kVA to 37 kVA \$301.01 \$336.64		• • • •		·										
(4) 26 kVA to 37 kVA \$336.64				·							·			
								•						
(5) 38 kVA to 50 kVA \$336 64 \$336 64		(5) 38 kVA to 50 kVA		\$336.64							\$336.64			
					\$369.58							\$523.96		
		• •			\$431.07							\$555.59		
(8) Above 125 kVA 0 \$594.94												·		
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